

REMARKS

CLAIM AMENDMENTS PREVIOUSLY PRESENTED

In their December 23, 2003 reply, applicants submitted certain amendments to the claims. These amendments were based on the set of claims as previously amended in the international stage of prosecution, and not on the claims as originally filed. For the examiner's convenience, applicants append hereto a set of these claims resulting from the international stage of prosecution. It is respectfully requested that the examiner enter the amendments to these claims as set forward in applicants' December 23, 2003 amendment and reply, and reconsider the rejections in light of those amendments and the remarks therein.

CONCLUSION

In view of the foregoing remarks and the amendments and remarks presented in the December 23, 2003 reply, applicants consider that the rejections of record have been obviated and respectfully solicit passage of the application to issue.

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KASTENHUBER et al., Serial No. 10/069,366

Respectfully submitted,
KEIL & WEINKAUF

A handwritten signature in black ink, appearing to read "David C. Liechty", with a long horizontal flourish extending to the right.

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**AS ENCLOSED TO IPER****Patent claims**

1. An apparatus for transporting polymer dispersions, said apparatus being capable of being driven by a drive and particularly comprising impellers (28), it being possible for said impellers both to be surrounded by a housing and to protrude freely into a medium, and a number of vanes (2) being mounted in the region of the hub (1), wherein a number of individual vanes (2) are freely mounted on the shaft hub (1) of an impeller (28), so that pumping spaces (5, 25) on the front side (7) and rear side (8) of the curved vanes (2) of the impeller (28) are flowed through uniformly.
2. The apparatus for transporting as claimed in claim 1, wherein the angle (23) of entry into the pumping spaces lies between 30° and 120°.
3. The apparatus for transporting as claimed in claim 2, wherein the angle (23) of entry into the pumping spaces is 90°.
4. The apparatus for transporting as claimed in claim 1, wherein the entire impeller (28) is provided with a conductive PFA coating.
5. The apparatus for transporting as claimed in claim 1, wherein the curved vanes (2) bounding the pumping spaces (5, 25) have the same path of curvature on the front side (7) and rear side (8).
6. The apparatus for transporting as claimed in claim 5, wherein the curved vanes (2) have the same radius of curvature (9, 21) on the front side (7) and rear side (8).
7. The apparatus for transporting as claimed in claim 1, wherein the center line (11) of the curved vanes (2) on the impeller (28) describe a segment of a circle between the enveloping curve (6) and the center of the hub (1).

8. The apparatus for transporting as claimed in claim 1, wherein the edges of the curved vanes (2) of the impeller (28) are of a rounded form.
9. The apparatus for transporting as claimed in claim 1, wherein the ratio of the vane width (4) to the vane thickness (3) is > 1 .
10. The apparatus for transporting as claimed in claim 1, wherein the enveloping curve (6) of the impeller (28) is surrounded by a spiral housing.
11. An impeller for transporting polymer dispersions, said impeller being driven by a drive and a number of vanes (2) being mounted in the region of the hub (1), wherein a number of individual curved vanes (2) are freely mounted on the hub (1) of the impeller (28), so that pumping spaces (5, 25) on the front side (7) and rear side (8) of the vanes (2) of the impeller (28) are flowed through uniformly.
12. An impeller for transporting media, said impeller being capable of being driven by a drive and a number of vanes (2), being mounted in the region of the hub (1), it being possible for said impeller both to be surrounded by a housing and to protrude freely into the medium, wherein a number of individual curved vanes (2) are freely mounted on the hub (1) of the impeller (28), so that pumping spaces (5, 25) on the front side (7) and rear side (8) of the curved vanes (2) of the impeller (28) are flowed through uniformly.
13. A method of preparing polymer dispersions, in particular shear-sensitive polymer dispersions, in a reactor with an external heat exchanger, with a transporting device which receives an impeller (28), wherein the polymer dispersion flows through pumping spaces (5, 25) between the curved vanes (2) of the impeller (28) of which delivery and suction sides (7,8) are of the same geometry.